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A METHOD OF MANUFACTURING PLASTIC ARTICLES

by

A.G. Turkov, M.I. Gofman, A.P. Ovchinnikov



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Block	Italic	Transliteration	Block	Italic	Transliteration
А а	<i>А а</i>	A, a	Р р	<i>Р р</i>	R, r
Б б	<i>Б б</i>	B, b	С с	<i>С с</i>	S, s
В в	<i>В в</i>	V, v	Т т	<i>Т т</i>	T, t
Г г	<i>Г г</i>	G, g	У у	<i>У у</i>	U, u
Д д	<i>Д д</i>	D, d	Ф ф	<i>Ф ф</i>	F, f
Е е	<i>Е е</i>	Ye, ye; E, e*	Х х	<i>Х х</i>	Kh, kh
Ж ж	<i>Ж ж</i>	Zh, zh	Ц ц	<i>Ц ц</i>	Ts, ts
З з	<i>З з</i>	Z, z	Ч ч	<i>Ч ч</i>	Ch, ch
И и	<i>И и</i>	I, i	Ш ш	<i>Ш ш</i>	Sh, sh
Й й	<i>Й й</i>	Y, y	Щ щ	<i>Щ щ</i>	Shch, shch
К к	<i>К к</i>	K, k	Ъ ъ	<i>Ъ ъ</i>	"
Л л	<i>Л л</i>	L, l	Ы ы	<i>Ы ы</i>	Y, y
М м	<i>М м</i>	M, m	Ь ь	<i>Ь ь</i>	'
Н н	<i>Н н</i>	N, n	Э э	<i>Э э</i>	E, e
О о	<i>О о</i>	O, o	Ю ю	<i>Ю ю</i>	Yu, yu
П п	<i>П п</i>	P, p	Я я	<i>Я я</i>	Ya, ya

*ye initially, after vowels, and after ъ, ь; e elsewhere.
When written as ѐ in Russian, transliterate as yě or ě.

RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English	Russian	English	Russian	English
sin	sin	sh	sinh	arc sh	sinh ⁻¹
cos	cos	ch	cosh	arc ch	cosh ⁻¹
tg	tan	th	tanh	arc th	tanh ⁻¹
ctg	cot	cth	coth	arc cth	coth ⁻¹
sec	sec	sch	sech	arc sch	sech ⁻¹
cosec	csc	csch	csch	arc csch	csch ⁻¹



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A METHOD OF MANUFACTURING PLASTIC ARTICLES.

A. G. Turkov, M. I. Gofman and A. P. Ovchinnikov.

Kuybyshev Polytechnic Institute im. V. V. Kuybyshev.

A commonly known method of manufacturing plastic articles, for example dies made of composites based on epoxy resins with a metallic filler and hardener is to mold the composite by casting in a mold subsequently hardening the obtained casting, and extracting from the mold. Frequently used as a filler is iron powder or other powders of ferromagnetic substances. However, the density and wear resistance of the working surfaces of castings completely depend on the quantity of metallic filler introduced into the composite.

Principle
The purpose of the invention is to obtain castings with predetermined density and wear resistance of the working surface by introducing in the composite a much smaller quantity of metallic filler through controlled distribution of filler in the volume of the article. *RUSSIAN PATENT 1612261*

This is achieved by the effect, on a composite poured into a mold, of a magnetic field created, for example, by a mold possessing magnetic properties or by a magnet introduced into the mold. During the stage of molding under the action of the magnetic field the particles of iron powder are attracted to the mold, which leads to creation of high density and wear resistance in the working surface of the casting. Experiments on an increase in density and wear resistance of the working surface of a casting showed that by changing the force of the magnetic field it is possible to obtain a predetermined density of the working surface of the casting.

By the proposed method it is possible to obtain epoxy resin-based dies, and also castings for other machine-building purposes of increased quality.

Object of invention.

A method of manufacturing plastic articles, for example dies, by casting in a mold polymeric composites with a metallic ferromagnetic powder-like filler, which is characterized by the fact that, for the purpose of ensuring a controllable distribution of the filler in the volume of the article in order to obtain denser and more wear-resistant working surfaces of the article, the composite poured into a mold is acted on by a magnetic field.

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